

CLAIMS

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112

1. Optical device comprising:

- a quantic well laser with a laser cavity formed by a laser medium between a reflection face (8) and an output face (9) reflecting part of the light energy to the cavity, *the curve representing the gain of the cavity as a function of the wavelength having a positive slope for increasing wavelengths, a maximum for a wavelength λ_{max} and then a negative slope,*
- means (2, 3, 4) of coupling the laser output to an optical fiber (5), the optical fiber having a fiber network (6) defining a coefficient of a reflection peak for a wavelength λ and reflecting a fraction of the light received from the laser through the fiber, to the laser cavity through coupling means (2, 3, 4).
- device characterized in that the value of the wavelength λ defining the reflection peak of the fiber Bragg network is less than the value of the wavelength λ_{max} by at least 10 nanometers at ambient temperature (25°C).

2. Optical device according to claim 1, characterized in that the value of the wavelength λ defining the reflection peak of the fiber Bragg network is 15 nm plus or minus 5 nm less than the value of the wavelength λ_{max} .

3. Optical device according to claim 1,
characterized in that the value of the network
reflection coefficient (6) is more than ten times
greater than the reflection coefficient (9) from the
5 laser output face.

4. Optical device according to claim 1,
characterized in that the value of the wavelength λ_{\max} is
at least 13 nm greater than the wavelength λ at which
10 the network (6) has a reflection peak when the
operating temperature is equal to 25°C.

5. Optical device according to claim 2,
characterized in that the value of the wavelength λ_{\max} is
15 at least 13 nm greater than the wavelength λ at which
the network (6) has a reflection peak when the
operating temperature is equal to 25°C.

6. Optical device according to claim 3,
20 characterized in that the value of the wavelength λ_{\max} is
at least 13 nm greater than the wavelength λ at which
the network (6) has a reflection peak when the
operating temperature is equal to 25°C.